

Application No: 10/810,019 Docket No.: Q198-US1

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IN THE CLAIMS

Please amend the claims as follows:

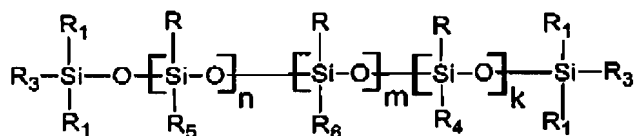
1. (currently amended) An electrochemical device, comprising:
an electrolyte including a polysiloxane having a backbone, the backbone including one or more terminal silicons linked to at least one side chain that includes ~~a poly(alkylene oxide) moiety~~ or a carbonate moiety.
2. (canceled)
3. (currently amended) The device of ~~claim 2~~ claim 1, wherein the carbonate moiety is a cyclic carbonate moiety.
4. (currently amended) The device of claim 1, wherein ~~at least one side chain includes the~~ at least one of the terminal silicons is linked to the side chain that includes the carbonate moiety and another of the terminal silicons is linked to at least one side chain that includes a poly(alkylene oxide) moiety,
5. (previously presented) The device of claim 4, wherein an organic spacer is positioned between the poly(alkylene oxide) moiety and the backbone.
- 6-8. (canceled)
9. (previously presented) The device of claim 1, wherein each terminal silicon is linked to at least one side chain that includes the carbonate moiety.
10. (previously presented) The device of claim 9, wherein each non-terminal silicon is linked to at least one side chain that includes a poly(alkylene oxide) moiety.
11. (canceled)

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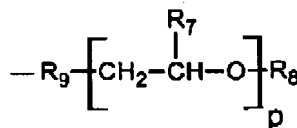
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12. (previously presented) The device of claim 1, wherein the at least one side chain includes an oxygen linked to a silicon on the backbone.

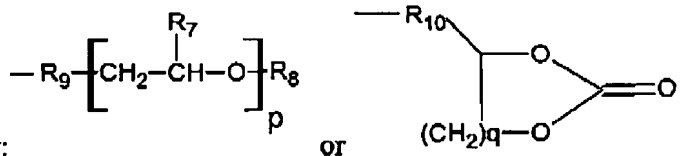
13. (currently amended) The device of claim 1, wherein the polysiloxane is represented by:



where R is alkyl or aryl; R₁ is alkyl or aryl;

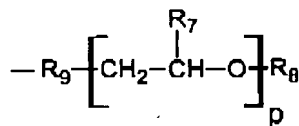


at least one of the R₃ is represented by: _____ and the other

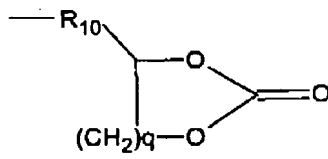


R₃ is represented by:

R₄ is a cross link that links the polysiloxane backbone to another polysiloxane backbone;



R₅ is represented by:



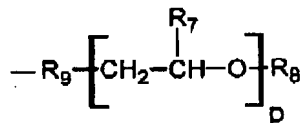
R₆ is represented by:

R₇ is hydrogen; alkyl or aryl; R₈ is alkyl or aryl; R₉ is oxygen or an organic spacer; R₁₀ is an oxygen or an organic spacer; k is greater than or equal to 0; p is 3 to 20; q is 1 to 2; m is greater than or equal to 0 and n is 2 to 25.

14. (previously presented) The device of claim 13, wherein a ratio of n:m is in a range of 10:1 to 100:1.

15. (canceled)

16. (previously presented) The device of claim 13, wherein at least one R₃ is represented



by:

17. (previously presented) The device of claim 16, wherein R₉ is an organic spacer.

18. (canceled)

19. (previously presented) The device of claim 13, wherein at least one R₃ has a different structure from another R₃.

20. (previously presented) The device of claim 13, wherein each R₃ has a different structure from each R₅ and from each R₆.

21. (previously presented) The device of claim 1, wherein the average molecular weight for the polysiloxane is less than or equal to 3000 g/mole.

22. (previously presented) The device of claim 1, wherein the electrolyte includes lithium ions, and wherein a [O]/[Li] ratio is 5 to 50, [O] being the molar concentration of the active oxygens in the electrolyte and [Li] being the molar concentration of the lithium ions in the electrolyte.

23. (previously presented) The device of claim 1, wherein the electrolyte is a liquid.

24. (withdrawn) The device of claim 1, wherein the electrolyte is a solid.

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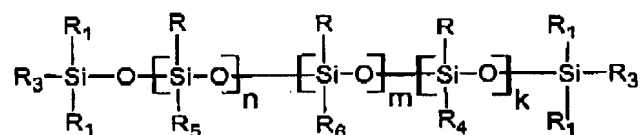
25. (canceled)

26. (previously presented) The device of claim 1, wherein the polysiloxane is a member of an interpenetrating network.

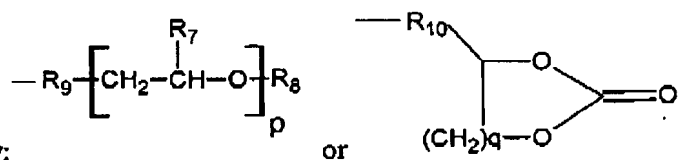
27. (previously presented) The device of claim 1, wherein the electrolyte has a conductivity better than 1.0×10^{-4} S/cm at 25 °C.

28-54. (canceled)

55. (new) An electrochemical device, comprising:
an electrolyte including a polysiloxane by:

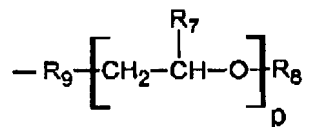


where R is alkyl or aryl; R₁ is alkyl or aryl;

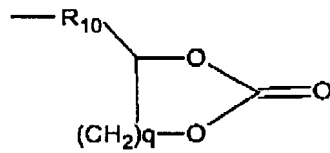


R₃ is represented by:

R₄ is a cross link that links the polysiloxane backbone to another polysiloxane backbone;



R₅ is represented by:



R₆ is represented by:

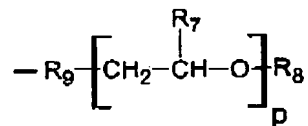
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R_7 is hydrogen; alkyl or aryl; R_8 is alkyl or aryl; R_9 is oxygen or an organic spacer; R_{10} is an oxygen or an organic spacer; k is greater than or equal to 0; p is 3 to 20; q is 1 to 2; m is greater than or equal to 0 and n is 2 to 25.

56. (new) The device of claim 55, wherein a ratio of $n:m$ is in a range of 10:1 to 100:1.

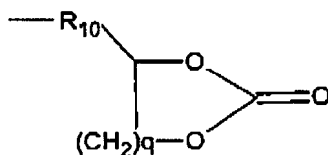
57. (new) The device of claim 55, wherein at least one R_3 is represented



by:

58. (new) The device of claim 57, wherein R_9 is an organic spacer.

59. (new) The device of claim 55, wherein at least one R_3 is represented by:



60. (new) The device of claim 55, wherein at least one R_3 has a different structure from another R_3 .

61. (new) The device of claim 55, wherein each R_3 has a different structure from each R_5 and from each R_6 .